

# Claims

- [c1] We Claim,
- A kit of sperm diagnostic products comprising ligands for identifying chromosomally normal sperm, ligands for sperm sexing, ligands for acrosome reacted sperm, ligands for sperm identification and ligands for centriol competence and combinations thereof.
- [c2] A kit of oocyte diagnostic products comprising ligands for identifying chromosomally normal oocytes, ligands for identifying cytoplasmic maturity, ligands for identifying fertilizing and implanting potential, ligands for identifying zona integrity and ligands for identifying cryosurvival.
- [c3] A kit of embryo diagnostic products comprising ligands for identifying chromosomally normal embryos, ligands for identifying cytoplasmic maturity, ligands for identifying the cortical reaction, ligands for identifying implanting potential, ligands for identifying zona hardening and ligands for identifying cryosurvival.
- [c4] A sperm therapeutic method comprising the step of identifying lead compounds for sperm contraception.
- A sperm therapeutic method comprising the steps of identifying HIV blocking peptides and then using said peptides to block the infection of sperm.

- [c5] An oocyte therapeutic method comprising the steps of identifying and developing maturational peptides and peptide mimetics.
- [c6] An oocyte therapeutic method comprising the step of identifying ligands for the cortical reaction.
- [c7] A method for genetic disease identification comprising the steps of identifying, isolating and applying embryonic surface markers for genetic disease.
- [c8] A product comprising antagonistic ligands for embryo viability and development.
- [c9] A product comprising agonistic ligands for embryo viability and development.
- [c10] A reproductive targeting ligand comprising an Oct 4 binding ligand, said Oct 4 binding ligand having the sequence RIM, inter alia.
- [c11] A reproductive targeting ligand comprising a sperm head ligand, said sperm head ligand having, inter alia, the amino acid sequence HEHR.
- [c12] A reproductive targeting ligand comprising a oocyte binding ligand, said oocyte binding ligand having, inter alia, the amino acid sequence HNSS.
- [c13] A binding pair of reproductive targeting and target ligands

comprising the sperm head ligand of Claim 11 and the oocyte binding ligand of Claim 12 respectively.

[c14] A reproductive targeting ligand comprising a bax binding ligand, said bax binding ligand having, inter alia, the sequence VPMLK.

[c15] An embryological ligand with oncological properties.